

**Marked-Up Copy of Amended Claim**

1. (Twice Amended) A method for monitoring [information in a medium] an enzymatic mediated biomolecular reaction, which reaction is performed in a medium comprising at least one biomolecule, the method comprising the steps of:

screening the medium with a screening means comprising a n number of sensing probes, where n is an integer of at least one so that more than one physical, chemical, or physico-chemical change of a gas or vapor phase of at least one secondary product of the biomolecule, a biomolecule byproduct or the biomolecule which defines the information is detected by the probe to produce at least one signal output, said medium is a mixture of one or more of enzymatic products, amplicon byproducts, primer byproducts, cloned products, polymerase chain (PCR) products, secondary products, PCR byproducts or reagents and said biomolecule is at least one of DNA, RNA or a nucleotide;

transferring the signal output to a signal processing means responsive to differences in electromagnetic properties of the signal for generating a final output;

receiving the final output into a pattern recognition means sufficient to generate a measurement pattern of the information;

sorting the information in accordance with a set of class boundaries of physical, chemical or physico-chemical changes of the biomolecule representative of the presence and quantitative amounts of the biomolecule in the medium; and

monitoring the sorted information for monitoring said enzymatic mediated biomolecular reaction.